



Job Recommendation Engine

NEAL CHENG

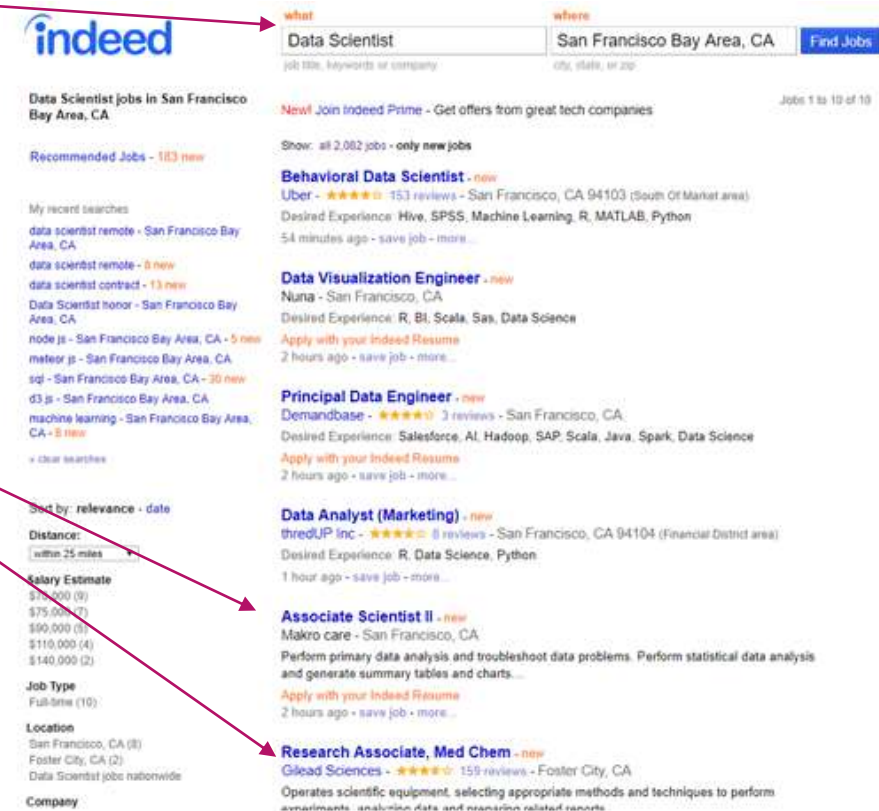
Frustrated with Job Searching?

Are you frustrated with mono/bi-word searches not representing the entirety of your skills?

Are you tired of job listing sites not displaying relevant jobs?

Jobs not within the data science field

What if you can search using your resume, not based on keywords?



The creation of the resume-based recommendation engine

- ▶ Data was obtained from the website of Glassdoor.com.
- ▶ A general search was performed using the cities of San Francisco, San Jose, Los Angeles, and San Diego
- ▶ After removing duplicates and clearing non-sensical results, I had obtained 1935 job postings.
- ▶ Two resumes were chosen from Indeed Resumes for the purpose of illustrating the utility of this algorithm

The Workflow

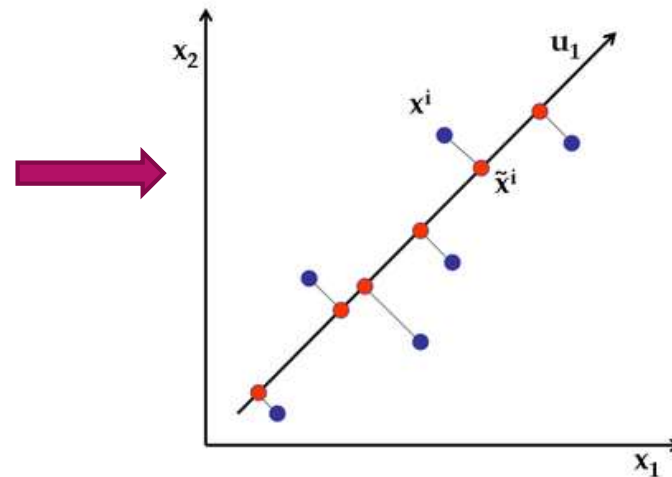
Preprocessing

Tokenizing of 1,2 grams
Removal of Stop Words

Count Vectorizing

Term Frequency Inverse
Document Frequency

PCA Decomposition



32000 -> 800 dimensions
preserving 73% of the variance

Comparison through Cosine Similarities



Sample Case 1: Data Scientist

Young Lee

Data Scientist - Allstate

Dublin, CA - Email me on Indeed: indeed.com/r/Young-Lee/109dcde6f5b08add

Data scientist with experience in property & casualty personal lines insurance and academic background in statistics and economics.

Modeling

- Regularized GLMs (LASSO, Ridge, Elastic net), Gradient Boosting Machines, Generalized Additive Models
- Insurance loss modeling using Tweedie regressions
- Longitudinal survey data analysis

Computing/Programming

- R, SQL, Linux, Python, Stata

Willing to relocate to: San Francisco, CA - San Jose, CA - Menlo Park, CA

Authorized to work in the US for any employer

WORK EXPERIENCE

Data Scientist

Allstate - Chicago, IL - August 2015 to Present


Built and deployed XGBoost model to predict likelihood of a policy having an undisclosed driver, potentially saving company in excess of \$3,200,000/year

- Performed predictive modeling of auto insurance losses and life insurance mortality using elastic net regularized generalized linear models, generalized additive models, and gradient boosting machines written in R within a Linux server environment
- Managed project to refit insurance pricing plan, working closely with actuaries to incorporate necessary adjustments for variations in state regulations from data preparation through model building and implementation

Search Results

	index	Cosine	Text	Url
0	343	0.379887	The Data Science and Engineering team builds ...	http://www.glassdoor.com/partner/jobListing.ht...
1	517	0.295938	Description: The Business Solution Group (BSG)...	http://www.glassdoor.com/partner/jobListing.ht...
2	1514	0.243625	Pacific Biosciences is looking for an experien...	http://www.glassdoor.com/partner/jobListing.ht...
3	1517	0.224549	Tapjoy's Maximum Impact PlatformTM provides m...	http://www.glassdoor.com/partner/jobListing.ht...
4	2660	0.212472	Job Description - Data Scientist (17903)Experi...	http://www.glassdoor.com/partner/jobListing.ht...
5	1728	0.187842	While Glassdoor is known for its reviews and ...	http://www.glassdoor.com/partner/jobListing.ht...
6	82	0.186333	About the team Evil exists and fortunately w...	http://www.glassdoor.com/partner/jobListing.ht...
7	830	0.175905	Elementary School Psychologist job opening av...	http://www.glassdoor.com/partner/jobListing.ht...
8	2767	0.174677	Title of Job: Lead Software Engineer Company D...	http://www.glassdoor.com/partner/jobListing.ht...
9	826	0.170684	I am now interviewing School Psychologist for...	http://www.glassdoor.com/partner/jobListing.ht...

Top Recommendation



Data Scientist - New Graduate

Asana 4.9★ 90 Reviews – San Francisco, CA

[Apply on Glassdoor](#) [Save](#) 7 days ago

Job Description

The Data Science and Engineering team builds Asana's core data pipelines and tools, and partners with teams throughout the company to drive key product and business decisions with metrics, experiments, and predictive models.

As a Data Scientist at Asana, you'll help us ask the right questions and answer them rigorously. You'll work closely with our Product and Business teams to understand their goals and proactively inform their direction with data. You'll keep taking on new responsibilities as you grow—from defining core metrics to building machine learning models and keeping the data flowing in our pipelines.

Typical responsibilities:

- Designing and analyzing experiments to measure the impact of new product features
- Investigating high-level questions such as "What are the collaborative patterns of the most successful teams using Asana?"

Sample Case 2: Accountant

Mansoor Hasan Accountant

Fremont, CA - Email me on Indeed: [indeed.com/r/Mansoor-Hasan/0819b5c434a3a5af](https://www.indeed.com/r/Mansoor-Hasan/0819b5c434a3a5af)

Business professional with a MBA degree, Proficient and adaptable individual, with the capability to handle numerous tasks concurrently a skill gained through my work experience in Salesforce.com. Motivated accountant with proven record of accurate bookkeeping, excellent customer service to, suppliers, management and clients.

Seeking Opportunities with high placed industry that will utilize my Skills, and aided the organization in reaching its pinnacle of success.

Internship (6th March 2017- 23rd June)

- SFDC Administrative tasks like creating Profiles, Roles, Users, Page, Page layouts, Search layouts to organize fields, Email Services, Approvals, Workflows, Reports, Dashboards, Actions, Tasks and Events.
- Analyzing business requirements, Entity Relationship diagram and implementing them to Salesforce Custom-objects, Junction-objects, Master-detail-relationships and Lookup relationships.
- Strong understanding with CRM systems like Salesforce.com, Oracle CRM, zoho CRM & Sugar CRM
- Issuing tickets for the small independent activities through task management.
- Monitoring and documenting the task with Project Management tool (JIRA)
- Business Systems Analyst in requirements elicitation, business analysis, and data analysis


Willing to relocate: Anywhere

Authorized to work in the US for any employer

Search Results

	Index	Cosine	Text	Url
0	1218	0.321268	We are looking for a Senior Accountant who wi...	http://www.glassdoor.com/partner/jobListing.ht...
1	1094	0.282929	Renew Financial is a recognized industry lead...	http://www.glassdoor.com/partner/jobListing.ht...
2	2258	0.251944	Senior Tax Accountant - San Diego CPA Firm Our...	http://www.glassdoor.com/partner/jobListing.ht...
3	16	0.242405	Senior Property Accountant JOB SUMMARY The Se...	http://www.glassdoor.com/partner/jobListing.ht...
4	2671	0.225737	Financial SpecialistThis is an exciting opport...	http://www.glassdoor.com/partner/jobListing.ht...
5	1072	0.224570	Outsourced Accounting Services Staff Accountan...	http://www.glassdoor.com/partner/jobListing.ht...
6	73	0.217089	Description IfOnly, an online experiences mark...	http://www.glassdoor.com/partner/jobListing.ht...
7	2680	0.214576	Robert Half Technology is seeking a Junior Sa...	http://www.glassdoor.com/partner/jobListing.ht...
8	2124	0.198220	Let's Make Things Happen! Ajinomoto Althea, ...	http://www.glassdoor.com/partner/jobListing.ht...
9	449	0.193652	Scope The Data Analyst is responsible for gath...	http://www.glassdoor.com/partner/jobListing.ht...

Top Recommendation



Sr. Accountant

Quantenna Communications 4.4 ★ [71 Reviews](#) - Fremont, CA

[Apply on Glassdoor](#) [Save](#)

6 days ago

Job Description

We are looking for a Senior Accountant who will be an integral part of a growing team. Reporting to the Accounting Manager, the ideal candidate has a strong sense of ownership and commitment, excellent accounting skills, detail oriented, thrives in a fast-paced environment, and results driven

KEY RESPONSIBILITIES:

- Responsible for general ledger accounting, including journal entry preparation, reconciliation and analysis of various balance sheet and income statement accounts to ensure compliance, integrity of balances, accuracy and timeliness of financial reporting and effectiveness of business processes.